

Title (en)
MRI compensated for spurious NMR frequency/phase shifts caused by spurious changes in magnetic fields during NMR data measurement processes.

Title (de)
Bilderzeugung mittels magnetischer Resonanz mit Kompensation der unechten Frequenz-/Phasenverschiebungen infolge unerwünschte Magnetfeldänderungen während des Messverfahrens zur Bestimmung der magnetischen Kernresonanz-Daten.

Title (fr)
Imagerie par résonance magnétique compensée pour des variations erratiques de fréquence/phase dues à des variations erratiques de champs magnétiques au cours du processus de prise de données RMN.

Publication
EP 0337588 B1 19950830 (EN)

Application
EP 89300168 A 19890110

Priority
US 18144088 A 19880414

Abstract (en)
[origin: EP0337588A2] At least one extra NMR measurement cycle is performed without any imposed magnetic gradients during readout and recordation of the NMR RF response. Calibration data derived from this extra measurement cycle or cycles can be used for resetting the RF transmitter frequency and/or for phase shifting other conventionally acquired NMR RF response data to compensate for spurious changes in magnetic fields experienced during the NMR data measuring processes. Some such spurious fields may be due to drifting of the nominally static magnetic field. Another source of spurious fields are due to remnant eddy currents induced in surrounding conductive structures by magnetic gradient pulses employed prior to the occurrence of the NMR RF response signal. Special procedures can be employed to permit the compensation data itself to be substantially unaffected by relatively static inhomogeneities in the magnetic field and/or by differences in NMR spectra of fat and water types of nuclei in imaged volumes containing both.

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IPC 8 full level
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CPC (source: EP US)
G01R 33/56518 (2013.01 - EP US); **G01R 33/56563** (2013.01 - EP US); **G01R 33/583** (2013.01 - EP US)

Cited by
KR100758084B1; KR100747934B1; EP0391515A3; DE19804823B4; DE19814677B4; CN105393132A; EP1178327A3; EP1143258A3; EP1207402A3; EP1102082A3; EP1102081A3; DE4005675A1; US5138259A; EP0538668A1; US5289127A; EP0490528A1; US8861828B2; US7847545B2; WO9114947A1; WO9427159A1; US7224164B2; US7359745B2; KR100424238B1; WO2005003802A1; WO03098548A3; WO9404937A1

Designated contracting state (EPC)
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